AMENDMENTS TO THE CLAIMS

1.   (Currently Amended) A noise reduction apparatus comprising:

a noise detector detecting a noise included in a demodulated audio signal;

a first corrector outputting a correction signal for correcting the noise according to a signal value existing just before and just after a predetermined period including a generation time point of the noise in the demodulated audio signal which is detected by said noise detector;

a second corrector outputting the correction signal for correcting the noise according to at least one of: one or more values of the demodulated audio signal which occur before the generation period of the noise which is detected by said noise detector, and one or more values of the demodulated audio signal which occur after the generation period;

a high band level detector detecting the level of a high band component of the demodulated audio signal; and

a selector selecting either one of said first or said second correctors according to the output of said high band level detector.

2.   (Previously Presented) The noise removal apparatus according to Claim 1, wherein

said first corrector outputs a low pass filter output of a signal value obtained from a linear interpolation of 2 signal values existing just before and just after a predetermined period including a generation time point of the noise, as a correction signal.

3.   (Previously Presented) The noise removal apparatus according to Claim 1,
wherein

said second corrector outputs a low pass filter output of the signal value obtained

from the linear interpolation of 2 average signal values obtained by averaging a plurality

of signal values existing before and after a predetermined period including the generation

time point of the noise, corresponding to each of before and after the generation of the

noise, as a correction signal.

4.   (Previously Presented) The noise removal apparatus according to Claim 1, further
comprising:

a level detector detecting the whole band level in the demodulated audio signal,

wherein

said selector is operated according to a relationship between a ratio of the level

output of said high band level detector to the level output of said level detector, and a

predetermined value.

5.   (Previously Presented) The noise removal apparatus according to Claim 1,
wherein

the detection sensitivity of said noise detector is changeable corresponding to the

output level of said high band level detector.

6.   (Canceled)

7.   (Original) An audio output apparatus comprising said noise removal apparatus

according to Claim 1.

8.   (Currently Amended) A noise removal apparatus comprising:

a noise detector detecting the noise included in a demodulation signal having the

information corresponding to audio signals of a plurality of channels from the

demodulation signals, each of the audio signals corresponding to a respective one of the

plurality of channels;

an audio signal demodulator demodulating and outputting the audio signals

corresponding to each of the plurality of channels from the information corresponding to

the audio signals included in the demodulation signals; and

a corrector independently correcting the detected noise in each audio signal,

which is outputted from said audio signal demodulator, according to the output of said

noise detector.

9.   (Previously Presented) The noise removal apparatus according to Claim 8,

wherein

said noise detector conducts the noise detection such that, for each predetermined

period which alternates among a plurality of channels, a portion of the period respectively

overlaps with each other.

10.   (Previously Presented) The noise removal apparatus according to Claim 8,

wherein

        according to the output of said noise detector, a generation condition of the noise

is detected, and corresponding to the detected result, the detection sensitivity of said

noise detector is controlled.

11.   (Original) An audio output apparatus including said noise removal apparatus

according to Claim 8.

12.   (Previously Presented) The noise removal apparatus according to Claim 1,

wherein

        said selector includes a low pass filter for extracting a low frequency component

of the demodulated audio signal, and wherein

        the generating period of the noise in the demodulated audio signal which is

detected by said noise detection means is corrected by holding the output signal from said

low pass filter.

13.   (Previously Presented) A method comprising:

        detecting a period in which noise occurs in a demodulated signal;

        detecting a level of a high band component of the demodulated signal;

configuring a correction signal for correcting the noise based on the high band

component level according to the following:

if the high band component level satisfies a first criteria, configuring the

correction signal to extend from a signal value in the demodulated signal that occurs prior

to the detected period, and

if the high band component level satisfies a second criteria, configuring the

correction signal based on a plurality of signal values in the demodulated signal that

occur prior to the detected period.

14.   (Previously Presented) The method of claim 13, wherein configuring the

correction signal includes:

obtaining a first correction signal that extends from the signal value in the

demodulated signal that occurs prior to the detected period;

obtaining a second correction signal based on the plurality of signal values in the

demodulated signal that occur prior to the detected period;

selecting one of the first and second correction signals based on whether the high

band component level satisfies the first or second criteria.

15.   (Previously Presented) The method of claim 14, further comprising:

determining the signal value in the demodulated signal that occurs prior to the

detected period;

determining a signal value in the demodulated signal that occurs subsequent to the

detected period;

obtaining the first correction signal by performing a linear interpolation of the

signal values in the demodulated signal respectively occurring prior to and subsequent to

the detected period.

16.   (Previously Presented) The method of claim 14, further comprising:

averaging the plurality of signal values in the demodulated signal that occur prior

to the detection period to obtain a first average value,

wherein the second correction signal extends from the first average value.

17.   (Previously Presented) The method of claim 16, further comprising:

averaging a plurality of signal values in the demodulated signals that occur

subsequent to the detection period to obtain a second average value; and

obtaining the second correction signal by performing a linear interpolation on the

first and second average values.

18.   (Previously Presented) The method of claim 14, further comprising:

low pass filtering the plurality of signal values in the demodulated signal that

occur before the detected period; and

holding a signal level of the low pass filtering to obtain the second correction

signal.

19.   (Previously Presented) The method of claim 14, wherein the selecting one of the

first and second correction signals includes:

detecting a level of high and low band components of the demodulated signal;

obtaining a ratio of the high band component level to the high and low band

components level;

determining whether the high band component level satisfies the first or second

criteria based on the ratio,

wherein the high band component level satisfies the first criteria if the ratio is less

than a predetermined level, and

the high band component level satisfies the second criteria if the ratio is larger

than the predetermined level.

20.   (Previously Presented) The method of claim 13, further comprising:

changing, based on the high band component level, a sensitivity of noise detection

associated with the detecting the period in which noise occurs.

21.   (Previously Presented) The method of claim 20, wherein the sensitivity of noise

detection decreases as the high band component level increases.